

## 10042865 Results

SEQ ID NO: 28

Result No.	Score	Query Match	Length	DB	ID	Description
1	2824	100.0	533	5	ABB98414	Abb98414 Human NOV
2	1794	63.5	529	5	AAO22794	Aao22794 Protein o
3	1786	63.2	529	5	AAE28617	Aae28617 Human UGT
4	1786	63.2	529	6	ADA11076	Ada11076 Human cDN
5	1784	63.2	533	4	ABG05523	Abg05523 Novel hum
6	1771.5	62.7	528	3	AAAY78933	Aay78933 Human UDP
7	1770	62.7	524	3	AAAY78934	Aay78934 Human UDP
8	1753.5	62.1	540	4	ABG05525	Abg05525 Novel hum
9	1751.5	62.0	530	7	ADC39065	Adc39065 Novel hum
10	1741.5	61.7	530	2	AAW47126	Aaw47126 Uridine d
11	1741.5	61.7	530	7	ADE58009	Ade58009 Human Pro
12	1732.5	61.3	530	3	AAAY78935	Aay78935 Human UDP
13	1732.5	61.3	530	6	ABJ19806	Abj19806 Androgen-
14	1716	60.8	529	4	AAE02188	Aae02188 Human bre
15	1709	60.5	532	4	ABG05524	Abg05524 Novel hum

## RESULT 6

AAAY78933

ID AAY78933 standard; protein; 528 AA.

XX

AC AAY78933;

XX

DT 05-JUN-2000 (first entry)

XX

DE Human UDP-glucuronosyltransferase 2B4 amino acid sequence.

XX

KW UDP-glucuronosyltransferase 2B4; UGT2B4; polymorphism; metabolism; SNPs;  
KW drug interaction; detect; human; single nucleotide polymorphism.

XX

OS Homo sapiens.

XX

PN WO200006776-A1.

XX

PD 10-FEB-2000.

XX

PF 22-JUL-1999; 99WO-US016675.

XX

PR 28-JUL-1998; 98US-0094391P.

XX

PA (AXYS-) AXYS PHARM INC.

XX

PI Galvin M, Miller A, Penny L, Riedy M;

XX

DR WPI; 2000-195321/17.

DR

N-PSDB; AAZ95199.

XX

PT Novel human UDP-glucuronosyltransferase sequence, polymorphisms for  
PT genotyping individuals to predict rate of metabolism of substrates and  
PT for identifying potential drug interactions.

XX

PS Disclosure; Page 36-37; 72pp; English.

XX

CC This sequence represents the human UDP-glucuronosyltransferase 2B4  
 CC (UGT2B4) amino acid sequence. UDP-glucuronosyltransferase (UGTs) are a  
 CC family of enzymes that catalyse the glucuronic acid conjugation of a wide  
 CC range of endogenous and exogenous substrates. The UGT2B gene subfamily  
 CC encode steroid metabolizing isoforms in the liver. Alteration of the  
 CC expression or function of UGTs may effect drug metabolism. The invention  
 CC relates to non-chromosomal nucleic acid molecules, which comprise human  
 CC UGT2B sequence polymorphisms (see AAZ95051-Z95110). Probes which detect

CC the UGT2B locus polymorphisms can be used to detect altered UGT2B  
 CC metabolism of a substrate in an individual. The nucleic acid molecules  
 CC comprising a human UGT2B sequence polymorphism can be used in screening  
 CC assays for genotyping individuals, also to predict their rate of  
 CC metabolism of UGT2B substrate, potential drug-drug interactions and  
 CC adverse side effects. The polymorphisms can be used as single nucleotide  
 CC polymorphisms (SNPs) for detecting genetic linkage related to phenotypic  
 CC variation in activity or expression of UGT2B protein. The polymorphism  
 CC containing nucleic acid molecules may also be used for generating  
 CC genetically modified non-human animals and for obtaining site specific  
 CC gene modification in cell lines

XX

SQ Sequence 528 AA;

Query Match 62.7%; Score 1771.5; DB 3; Length 528;  
 Best Local Similarity 66.2%; Pred. No. 1.3e-173;  
 Matches 355; Conservative 54; Mismatches 116; Indels 11; Gaps 9;

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Db      1 MSMKWTSAALLIQLSCYFSSSGCGKLVWPTEFSSHWMNIKTILDELVRGHEVTVLASSA 60

Qy     61 SILVDPNITSVTKFVYISIVIKDDFAGFFFTQQITKWIHDLPKHIFWFKCVPFKNILWE 120
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Db     61 SISFDPNPSTLKFVYVPVSLTKTEFED-IIKQLVKRWA-ELPKDTFWSYFSQVQEIMWT 118

Qy    121 YSGYTEKFFKDVVLNKKLMTNLQESRSDVVHANAIGPFGELLAELLKISFVYSLHFSPGY 180
      :: ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db    119 FNDILRKFKCDIVSNKKLKKLQESRFDVVLADAVFPFGELLAELLKIPFVYSLRFS PGY 178

Qy    181 TFEKYSGGFLLPPSYGAVILSELGSGMTFMETVRNIIYVFYDFWFQTFDMKKGDQFYSE 240
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Qy    241 VLGKSCFLSEIMGKAEMWLIIRNYWYLEFPRPLLPNFEFVVRLYCKPVNPLPKEKMEEFAQ 300
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Qy    301 SSDEDG-VVFSLESVQNLTTEEKADLITSALAQIPQKVM-KF-GRKPNTLRSNTQWHRWI 357
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Db    298 SSGENGVVVFSLGSMVSNTESEERANVIASALAKIPQKVLWRFDGKNKPDTLGLNTRLYKWI 357

Qy    358 PQNECLILDHPQTKAFITYGGTNSIYEMIYRGVPSMGIFLADQHDNIAHMKAKGAAVIL 417
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Db    358 PQND--LLGHPKTRAFITHGGANGIYEAIVHGIPMVGVPFLFADQPDNIAHMKAKGAAVSL 415

Qy    418 DLSTKSSSTDLLDISVFSVLSFLSFRYKESVMKLSRIQHDQPVKPLDRAVFWIEFVMRHKGA 477
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Db    416 DFHTMSSTDLL--NALKTVINDPLYKENAMKLSRIHHDQPVKPLDRAVFWIEFVMRHKGA 473

Qy    478 KHLRVAARDLTWFQYHSLDVIGFLLACVATVTFIITKCCLCFCFWKFTRKVKKEKRD 533
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Db    474 KHLRVAADLTWFQYHSLDVTGFLACVATVIFIITK-CLFCVWKVVRTGKKGKRD 528
  
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Issued

# SUMMARIES

Result	No.	Score	% Query Match	Length	DB	ID	Description
	1	1771.5	62.7	528	4	US-09-356-806-8	Sequence 8, Appli
	2	1770	62.7	524	4	US-09-356-806-40	Sequence 40, Appl
	3	1741.5	61.7	530	3	US-09-180-852-2	Sequence 2, Appli
	4	1732.5	61.3	530	4	US-09-356-806-113	Sequence 113, App
	5	1375.5	48.7	454	4	US-09-813-918-2	Sequence 2, Appli
	6	998	35.3	288	4	US-09-813-918-3	Sequence 3, Appli
	7	779	27.6	531	5	PCT-US92-00282-6	Sequence 6, Appli
	8	777.5	27.5	534	5	PCT-US92-00282-4	Sequence 4, Appli
	9	777	27.5	533	5	PCT-US92-00282-3	Sequence 3, Appli

10	737.5	26.1	531	5	PCT-US92-00282-5	Sequence 5, Appli
11	689.5	24.4	529	5	PCT-US92-00282-7	Sequence 7, Appli
12	568.5	20.1	245	4	US-09-305-856B-18	Sequence 18, Appl
13	543	19.2	197	4	US-09-813-918-4	Sequence 4, Appli
14	311	11.0	98	5	PCT-US92-00282-26	Sequence 26, Appl
15	281	10.0	515	3	US-08-942-012B-32	Sequence 32, Appl

Result No.	Score	Query Match	Length	DB	ID	Description
1	1756	62.2	529	6	Q97951	Q97951 macaca fasc
2	1745	61.8	529	6	Q9GLD9	Q9gld9 macaca mula
3	1734	61.4	529	6	Q9TSL6	Q9tsl6 macaca fasc
4	1730	61.3	529	6	Q9GLE0	Q9gle0 macaca mula
5	1700.5	60.2	528	6	Q8WN97	Q8wn97 macaca fasc
6	1554.5	55.0	529	11	Q8R084	Q8r084 mus musculu
7	1554.5	55.0	532	11	Q8K154	Q8k154 mus musculu
8	1545.5	54.7	528	11	Q8VIF9	Q8vif9 cavia porce
9	1481	52.4	529	11	Q8VIF8	Q8vif8 cavia porce
10	1473	52.2	529	11	Q8BJL9	Q8bjl9 mus musculu
11	1465.5	51.9	530	11	Q8K169	Q8k169 mus musculu

Result No.	Score	Query Match	Length	DB	ID	Description
1	1786	63.2	529	1	UDB7_HUMAN	P16662 homo sapien
2	1771.5	62.7	528	1	UDB4_HUMAN	P06133 homo sapien
3	1741.5	61.7	530	1	UDBH_HUMAN	O75795 homo sapien
4	1741	61.7	529	1	UDB9_MACFA	O02663 macaca fasc
5	1732.5	61.3	530	1	UDBF_HUMAN	P54855 homo sapien
6	1723.5	61.0	528	1	UDBA_HUMAN	P36537 homo sapien
7	1721.5	61.0	528	1	UDBJ_MACFA	Q9xt55 macaca fasc
8	1716	60.8	529	1	UDBB_HUMAN	O75310 homo sapien
9	1683	59.6	529	1	UDBS_HUMAN	Q9by64 homo sapien
10	1677.5	59.4	530	1	UDBK_MACFA	O77649 macaca fasc
11	1563.5	55.4	523	1	UDBG_RABIT	O19103 oryctolagus
12	1553	55.0	531	1	UDBD_RABIT	P36512 oryctolagus
13	1545.5	54.7	529	1	UDB1_RAT	P09875 rattus norv
14	1540.5	54.6	530	1	UDBE_RABIT	P36513 oryctolagus
15	1508.5	53.4	530	1	UDBC_RAT	P36511 rattus norv
16	1461.5	51.8	530	1	UDB5_MOUSE	P17717 mus musculu
17	1445.5	51.2	530	1	UDB2_RAT	P08541 rattus norv
18	1437.5	50.9	530	1	UDB3_RAT	P08542 rattus norv
19	1413.5	50.1	530	1	UDB6_RAT	P19488 rattus norv

SEQ ID NO : 27

Result No.	Score	Query Match	Length	DB	ID	Description
1	1606	100.0	1606	6	AX675577	AX675577 Sequence
2	1606	100.0	1606	6	AX921811	AX921811 Sequence
3	973	60.6	1855	6	AX336329	AX336329 Sequence
4	973	60.6	1855	6	AX336696	AX336696 Sequence
5	973	60.6	1855	6	AX409473	AX409473 Sequence
6	973	60.6	1855	9	HUMUDPGTA	J05428 Human 3,4-c
7	966.6	60.2	1766	9	BC030974	BC030974 Homo sapi
8	966.6	60.2	1854	6	BD229166	BD229166 Genotype
9	966.6	60.2	1854	6	AR349418	AR349418 Sequence
10	962.4	59.9	1639	6	AX548042	AX548042 Sequence
11	958.6	59.7	2107	6	AR168316	AR168316 Sequence
12	958.6	59.7	2107	9	HSU59209	U59209 Homo sapien
13	953.8	59.4	1753	9	AF016310	AF016310 Macaca fa
14	950.6	59.2	1976	6	BD229238	BD229238 Genotype
15	950.6	59.2	1976	6	AR349490	AR349490 Sequence

RESULT 6  
HUMUDPGTA  
LOCUS HUMUDPGTA 1855 bp mRNA linear PRI 03-AUG-1993  
DEFINITION Human 3,4-catechol estrogen UDP-glucuronosyltransferase mRNA, complete cds.  
ACCESSION J05428  
VERSION J05428.1 GI:340079  
KEYWORDS 3,4-catechol estrogen UDP-glucuronosyltransferase.  
SOURCE Homo sapiens (human)  
ORGANISM Homo sapiens  
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
REFERENCE 1 (bases 1 to 1855)  
AUTHORS Ritter,J.K., Sheen,Y.Y. and Owens,I.S.  
TITLE Cloning and expression of human liver UDP-glucuronosyltransferase in COS-1 cells. 3,4-catechol estrogens and estriol as primary substrates  
JOURNAL J. Biol. Chem. 265 (14), 7900-7906 (1990)  
MEDLINE 90243659  
PUBMED 2159463  
COMMENT Original source text: Human liver, cDNA to mRNA, clone 63-11. Draft entry and computer-readable sequence for [1] kindly submitted by I.S.Owens, 22-FEB-1990.  
FEATURES  
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CDS 15. .1604  
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TKCCLFCFWKFARKAKKGKND"

# ORIGIN

Query Match 60.6%; Score 973; DB 9; Length 1855;  
Best Local Similarity 78.3%; Pred. No. 1e-212;  
Matches 1265; Conservative 0; Mismatches 320; Indels 30; Gaps 7;

Qy 1 ATGGCTATGAAATGGACTTCAGTCCTTCTGTTGATACAGCTGAGCTATTACTCTAGCTCT 60  
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Db 15 ATGCTCTGTGAAATGGACTTCAGTAATTTTGCTAATACTAGCTTTTGCTTTAGCTCT 74  
Qy 61 GGGAGTTGTGGAATGTGCCCTGTGGCCCATGGAATATAGTCCTTGGATGAATATAAAG 120  
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Db 75 GGAATTTGTGGAAGGTGCTGGTGTGGGCAGCAGAATACAGCCATTGGATGAATATAAAG 134  
Qy 121 ACAATCCTGGATAAACTTATGCAGATAAGTCATGAGGTGACTGTTCTAACATTGTGAGCT 180  
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Db 135 ACAATCCTGGATGAGCTTATTGAGAGAGTCATGAGGTGACTGTACTGGCATCTTCAGCT 194  
Qy 181 TCCATTCTTGTGTGATCCCAACATAACATCTGTTACTAAATTTGAGGTTTATTCTATATCT 240  
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Db 195 TCCATTCTTTTGTATCCCAACAACTCATCGCTCTTAAATTTGAAATTTATCCACATCT 254  
Qy 241 GTAATTAAAGATGATTTTGCAGGTTTTCACACAACAGATTACTAAATGGATACAT 300  
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Db 255 TTAATAAACTGAGTT---GGAGAATTTCATCATGCAACAGATTAAGAGATGGTCA--- 308  
Qy 301 GATCTTCCAAAACATATATTTTGGTTTAAATGTGTTCCCTTCAAGAATATTCTTTGGGAA 360  
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 Qy 361 TATTCTGGTTATACTGAGAAGTCTTTTAAAGATGTAGTTTGAACAAGAACTTATGACA 420  
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 Db 489 CTGCTGGCTGAGCTATTAAACATACCCTTTGTGTACAGTCTCAGCTTCTCTCCTGGCTAC 548  
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 Qy 1192 TTTGCGGACCAACATGATAACATTGCTCACATGAAGGCCAAGGGAGCAGCTGTTATATTG 1251  
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 Qy 1252 GACTTGAGCACAAAGTCAAGTACAGATTGCTCGATATATCTGTGTTCTGTTATTTT 1311  
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Db      1374 GTGAAGCCCTGGATCGAGCAGTCTTCTGGATTGAATTTGTCATGCGCCACAAAGGAGCT 1433
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QY      1552 TTTTGTTTCTGGAAGTTTACTAGAAAAGTGAAGAAGGAAAAAAGGGATTAGTTAT 1606
Db      1554 TTTTGTTTCTGGAAGTTTGTCTAGAAAAGCAAAGAAGGAAAAAATGATTAGTTAT 1608

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RESULT 12

HSU59209

LOCUS HSU59209 2107 bp mRNA linear PRI 02-JUL-1998

DEFINITION Homo sapiens C19steroid specific UDP-glucuronosyltransferase mRNA, complete cds.

ACCESSION U59209

VERSION U59209.1 GI:3287472

KEYWORDS UGT2B17G.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 2107)

AUTHORS Beaulieu,M., Levesque,E., Hum,D.W. and Belanger,A.

TITLE Isolation and characterization of a novel cDNA encoding a human UDP-glucuronosyltransferase active on C19 steroids

JOURNAL J. Biol. Chem. 271 (37), 22855-22862 (1996)

MEDLINE 96394358

PUBMED 8798464

REFERENCE 2 (bases 1 to 2107)

AUTHORS Hum,D.W., Belanger,A., Beaulieu,M. and Levesque,E.

TITLE Direct Submission

JOURNAL Submitted (23-MAY-1996) Laboratory of Molecular Endocrinology, Centre Hospitalier de l'universite Laval, 2705 Boul. Laurier, Ste-Foy, Quebec G1V 4G2, Canada

FEATURES Location/Qualifiers

source 1. .2107

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/db\_xref="taxon:9606"

/cell\_type="LNCaP"

/tissue\_type="prostate"

CDS 52. .1644

/note="UGT2B17"

/codon\_start=1

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ORIGIN

Query Match 59.7%; Score 958.6; DB 9; Length 2107;

Best Local Similarity 77.3%; Pred. No. 2.1e-209;

Matches 1249; Conservative 0; Mismatches 339; Indels 27; Gaps 6;

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Db      52 ATGTCTCTGAAATGGATGTGCTAGTCTTTCTGCTGATGCAGCTCAGTTGTTACTTTAGCTCT 111

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Qy	61	GGGAGTTGTGGAAATGTGCCGCTGTGGCCCATGGAATATAGTCCCTTGGATGAATATAAAG	120
Db	112	GGGAGTTGTGGAAAGGTGCTGGTGTGGCCACAGAATACAGCCATTGGATAAAATATGAAG	171
Qy	121	ACAATCCTGGATAAACTTATGCAGATAAGTCATGAGGTGACTGTTCTAACATTGTGAGCT	180
Db	172	ACAATCCTGGAAGAGCTTGTTCAGAGGGGTCATGAGGTGATTGTGTTGACATCTTCGGCT	231
Qy	181	TCCATTCTTGTGTGATCCCAACATAACATCTGTTACTAAATTGAGGTTTATTCTATATCT	240
Db	232	TCTATTCTTGTCAATGCCAGTAAATCATCTGCTATTAAATTAGAAGTTTATCCTACATCT	291
Qy	241	GTAATTAAGATGATTTTGCAGGGTTTTTTTTTTCACACAACAGATTACTAAATGGATACAT	300
Db	292	TTAACTAAAAATGATTGGAAGATTTTATGA---AAATGTTTCGATAGATGGACATAT	348
Qy	301	GATCTTCCAAAACATATATTTTGGTTTAAATGTGTTCCCTTCAAGAAATATCTTTGGGAA	360
Db	349	AGTATTTCAAAAAATACATTTTGGTCATATTTTTCACAACCTACAAGAATTGTGTTGGGAA	408
Qy	361	TATTCTGGTTTATACTGAGAAGTCTTTTAAAGATGTAGTTTGAACAAGAACTTATGACA	420
Db	409	TATTCTGACTATAATATAAAGCTCTGTGAAGATGCAGTTTGAACAAGAACTTATGAGA	468
Qy	421	AACCTACAAGAATCAAGGTCTGATGTCGTTTCATGCAAATGCCATTGGTCCCTTTGGAGAG	480
Db	469	AACTACAAGAGTCAAAATTTGATGTCCTTCTGGCAGATGCCGTTAATCCCTGTGGTGAG	528
Qy	481	CTGCTGGCTGAGCTATTAATAATATCCTTTGTGTACAGTCTCCACTTCTCTCGGCTAC	540
Db	529	CTGCTGGCTGAACCTACTTAACATACCCCTTCTGTACAGTCTCCGCTTCTCTGTGGCTAC	588
Qy	541	ACATTGAGAAATACAGTGGAGGATTTCTACTTCCACCTTCCTATGGAGCTGTTATTCTG	600
Db	589	ACAGTTGAGAAGAATGGTGGAGGATTTCTGTTCCCTCCTTCTATGTACCTGTTGTTATG	648
Qy	601	TCAGAATTAAGTGGTTCGATGACATTCATGGAGACAGTAAGAAATATTATATATGTGTTT	660
Db	649	TCAGAATTAAGTGATCAAATGATTTTCATGGAGAGGATAAAAAATATGATATATATGCTT	708
Qy	661	TATTTTGACTTTTGGTTCCAAACATTTGATATGAAGAAGGAGACCAGTTTTACAGTGAA	720
Db	709	TATTTTGACTTTTGGTTTCAAGCATATGATCTGAAGAAGTGGGACCAGTTTTATAGTGAA	768
Qy	721	GTTCTAGGTAAGTCATGTTTTTTATCTGAGATAATGGGAAAAGCTGAAATGTGGCTCATT	780
Db	769	GTTCTAGGAAGACCCACTACATTATTTGAGACAATGGGAAAAGCTGAAATGTGGCTCATT	828
Qy	781	CGAAACTACTGGTATTTGGAATTTCCCTCGCCCACTCTTACCTAATTTGAATTTGTTGTA	840
Db	829	CGAACCTATTGGGATTTTGAATTTCCCTCGCCCACTCTTACCAATGTTGATTTTGTGGA	888
Qy	841	AGACTCTACTGCAAACCTGTCAACCCCTGCCTAAGGAGAAAAATGGAAGAATTTGCCAG	900
Db	889	GGACTTCACTGTAACACGACCAAACCTTGCCTAAGG---AAATGGAAGAGTTGTGCAG	945
Qy	901	AGCTCTGATGAAGACGG---TGTTGTGTTTTCTCTGGAGTCAGCTGTGCAAAACCTTACA	957
Db	946	AGCTCTGGAGAAAAATGTTATTGTGGTGTTCCTCTGGGGTCGATGATCAGTAACATGTCA	1005
Qy	958	GAAGAAAAAGCTGATCTTATCACTTCGCGCCCTGGCTCAGATTCCACAAAAAGTCATGAAG	1017
Db	1006	GAAGAAAGTGCCAACATGATTGCATCAGCCCTTGCCAGATCCACAAAAGGTTCTATGG	1065
Qy	1018	-----TTCGGAAGGAAACCAAATACCTTAAGATCCAATACTCAGTGGCATAGGTGGAT	1071
Db	1066	AGATTTGATGCAAGAAGCCAAATACCTTTAGGTTCCAATACTCGACTGTATAAGTGGTTA	1125
Qy	1072	CCACAGAATGAATGTCTTATCCTAGATCATCCCAACCAAAGCCTTTATAACTTATGGT	1131





XX  
 PN WO200006776-A1.  
 XX  
 PD 10-FEB-2000.  
 XX  
 PF 22-JUL-1999; 99WO-US016675.  
 XX  
 PR 28-JUL-1998; 98US-0094391P.  
 XX  
 PA (AXYS-) AXYS PHARM INC.  
 XX  
 PI Galvin M, Miller A, Penny L, Riedy M;  
 XX  
 DR WPI; 2000-195321/17.  
 DR P-PSDB; AAY78934.  
 XX  
 PT Novel human UDP-glucuronosyltransferase sequence, polymorphisms for  
 PT genotyping individuals to predict rate of metabolism of substrates and  
 PT for identifying potential drug interactions.  
 XX  
 PS Disclosure; Page 41-44; 72pp; English.  
 XX  
 CC This sequence represents the human UDP-glucuronosyltransferase 2B7  
 CC (UGT2B7) gene. UDP-glucuronosyltransferase (UGTs) are a family of enzymes  
 CC that catalyse the glucuronic acid conjugation of a wide range of  
 CC endogenous and exogenous substrates. The UGT2B gene subfamily encode  
 CC steroid metabolizing isoforms in the liver. Alteration of the expression  
 CC or function of UGTs may effect drug metabolism. The invention relates to  
 CC non-chromosomal nucleic acid molecules, which comprise human UGT2B  
 CC sequence polymorphisms (see AAZ95051-Z95110). Probes which detect the  
 CC UGT2B locus polymorphisms can be used to detect altered UGT2B metabolism  
 CC of a substrate in an individual. The nucleic acid molecules comprising a  
 CC human UGT2B sequence polymorphism can be used in screening assays for  
 CC genotyping individuals, also to predict their rate of metabolism of UGT2B  
 CC substrate, potential drug-drug interactions and adverse side effects. The  
 CC polymorphisms can be used as single nucleotide polymorphisms (SNPs) for  
 CC detecting genetic linkage related to phenotypic variation in activity or  
 CC expression of UGT2B protein. The polymorphism containing nucleic acid  
 CC molecules may also be used for generating genetically modified non-human  
 CC animals and for obtaining site specific gene modification in cell lines  
 XX  
 SQ Sequence 1854 BP; 572 A; 338 C; 392 G; 552 T; 0 U; 0 Other;

Query Match 60.2%; Score 966.6; DB 3; Length 1854;  
 Best Local Similarity 78.1%; Pred. No. 4.2e-241;  
 Matches 1261; Conservative 0; Mismatches 324; Indels 30; Gaps 7;

Qy	1	ATGGCTATGAAATGGACTTCAGTCCTTCTGTTGATACAGCTGAGCTATTACTCTAGCTCT	60
Db	15	ATGTCTGTGAAATGGACTTCAGTAATTTTGCTAATAACAAGCTTTGCTTTAGCTCT	74
Qy	61	GGGAGTTGTGGAAATGTGCGCTGTGGCCCATGGAATATAGTCCTTGGATGAATATAAAG	120
Db	75	GGGAATTGTGGAAGGTGCTGGTGTGGCAGCAGAATACAGCCATTGGATGAATATAAAG	134
Qy	121	ACAATCCTGGATAAACTTATGCAGATAAGTCATGAGGTGACTGTTCTAACATTGTCAGCT	180
Db	135	ACAATCCTGGATGAGCTTATTCAGAGAGGTGATGAGGTGACTGTACTGGCATCTTCAGCT	194
Qy	181	TCCATTCTTGTTGATCCCAACATAACATCTGTTACTAAATTTGAGGTTTATTCTATATCT	240
Db	195	TCCATTCTTTTGTATCCCAACAACTCATCCGCTCTTAAATTGAAATTTATCCACATCT	254
Qy	241	GTAATTAAAGATGATTTTGCAGGGTTTTTTTTCACACAACAGATTACTAAATGGATACAT	300
Db	255	TTAACTAAAGTGAAGTT---GGAGAAATTCATCATGCAACAGATTAAGAGATGGTCA---	308
Qy	301	GATCTTCCAAAACATATATTTTGGTTTAAATGTGTTCCCTTCAAGAATATTCTTTGGGAA	360
Db	309	GACCTTCCAAAAGATACATTTTGGTTATATTTTTCACAAGTACAGGAAATCATGTCAATA	368

QY 361 TATTCTGGTTATACTGAGAAGTTCTTTAAAGATGTAGTTTTGAACAAGAACTTATGACA 420  
 Db 369 TTTGGTGACATAACTAGAAAGTTCTGTAAAGATGTAGTTTCAAATAAGAAATTTATGAAA 428

QY 421 AACCTACAAGAATCAAGGTCTGATGTCGTTTCATGCAAAATGCCATTGGTCCCTTTGGAGAG 480  
 Db 429 AAAGTACAAGAGTCAAGATTGACGTCATTTTGCAGATGCTATTTTCCCTGTAGTGAG 488

QY 481 CTGCTGGCTGAGCTATTAAAAATATCCTTTGTGTACAGTCTCCACTTCTCTCCTGGCTAC 540  
 Db 489 CTGCTGGCTGAGCTATTTAACATACCCCTTTGTGTACAGTCTCAGCTTCTCTCCTGGCTAC 548

QY 541 ACATTTGAGAAATACAGTGGAGGATTTCTACTTCCACCTTCCTATGGAGCTGTTATTCTG 600  
 Db 549 ACTTTTGAAAAGCATAGTGGAGGATTTATTTCCCTCCTTCCTACGTACCTGTTGTTATG 608

QY 601 TCAGAAATTAAGTGGTTCGATGACATTCATGGAGACAGTAAGAAATATATATATGTGTTT 660  
 Db 609 TCAGAAATTAAGTGGTTCGATGACATTCATGGAGAGGGTAAAAATATGATCTATGTGCTT 668

QY 661 TATTTTGACTTTTGGTTCCAAACATTTGATATGAAGAAGGGAGACCAGTTTACAGTGAA 720  
 Db 669 TACTTTGACTTTTGGTTCGAAATATTGACATGAAGAAGTGGATCAGTTTATAGTGAA 728

QY 721 GTTCTAGGTAAGTCATGTTTTTTATCTGAGATAATGGGAAAAGCTGAAATGTGGCTCATT 780  
 Db 729 GTTCTAGGAAGACCCACTACATTATCTGAGACAATGGGAAAAGCTGACGTATGGCTTATT 788

QY 781 CGAAACTACTGGTATTGGAATTTCTCGCCCACTCTTACCTAATTTGAATTTGTTGTA 840  
 Db 789 CGAAACTCCTGGAATTTTCAGTTTCCATATCCACTCTTACCAAATGTTGATTTTGTGGA 848

QY 841 AGACTCTACTGCAAACCTGTCAACCCCTGCCTAAGGAGAAAATGGAAGAATTTGCCAG 900  
 Db 849 GGACTCCACTGCAAACCTGCCAAACCCCTGCCTAAGG---AAATGGAAGACTTTGTACAG 905

QY 901 AGCTCTGATGAAGACGGTGT---GTGTTTCTCTGGAGTCAGCTGTGCAAAACCTTACA 957  
 Db 906 AGCTCTGGAGAAAATGGTGTGTGTGTTTCTCTGGGGTCAATGGTCAGTAACATGACA 965

QY 958 GAAGAAAAAGCTGATCTTATCACTTCGGCCCTGGCTCAGATTCCACAAAAAGTCATGAAG 1017  
 Db 966 GAAGAAAGGGCCAAACGTAATTGCATCAGCCCTGGCCAGATCCACAAAAGGTTCTGTGG 1025

QY 1018 -----TTCGGAAGGAAACCAATACCTTAAGATCCAATACTCAGTGGCATAGGTGGATC 1071  
 Db 1026 AGATTGTATGGGAATAAACAGATACCTTAGGTCTCAATACTCGGCTCTACAAGTGGA 1085

QY 1072 CCACAGAATGAATGTCTTATCCTAGATCATCCCAAACCAAGCCTTTATAACTTATGGT 1131  
 Db 1086 CCCAGAATGA-----CCTTCTAGGTATCCAAAGACCAGAGCTTTATAACTCATGGT 1139

QY 1132 GGAACAAATAGCATCTATGAGATGATCTACCGTGGAGTCCCTTCCATGGGCATTCCCTTG 1191  
 Db 1140 GGAGCCAATGGCATCTACGAGGCAATCTACCATGGGATCCCTATGGTGGGGATTCCATTG 1199

QY 1192 TTGCGGACCAACATGATAACATTGCTCACATGAAGGCCAAGGGAGCAGCTGTTATATTG 1251  
 Db 1200 TTGCCGATCAACCTGATAACATTGCTCACATGAAGGCCAGGGAGCAGCTGTTAGAGTG 1259

QY 1252 GACTTGAGCACAAAGTCAAGTACAGATTTGCTCGATATATCTGTGTTTCGTATCTTTATTT 1311  
 Db 1260 GACTTCAACACAATGTCGAGTACAGACTTGCTGAATGCATTGAAGAGAGTAATTAATGAT 1319

QY 1312 TTATCCTTCAGATATAAAGAGAGTGTTATGAAATTATCAAGAATTCAACATGATCAACCA 1371  
 Db 1320 CCTTC-----ATATAAGAGAATGTTATGAAATTATCAAGAATTCAACATGATCAACCA 1373

QY 1372 GTGAAGCCCCTGGATCGAGCAGTCTTCTGGATTGAATTTGTCATGCGCCACAAAGGAGCC 1431  
 Db 1374 GTGAAGCCCCTGGATCGAGCAGTCTTCTGGATTGAATTTGTCATGCGCCACAAAGGAGCT 1433

Qy 1432 AAACACCTTCGAGTTGCAGCCCGTGACCTCACCTGGTTCCAGTACCACTCTTTGGATGTG 1491  
 |||||  
 Db 1434 AAACACCTTCGGGTTGCAGCCACGACCTCACCTGGTTCCAGTACCACTCTTTGGATGTG 1493  
 |||||  
 Qy 1492 ATTGGGTTTCTGCTGGCCTGTGTGGCAACTGTGACATTTATCATCACAAAGTGTGTCTG 1551  
 |||||  
 Db 1494 ATTGGGTTCTGCTGGTCTGTGTGGCAACTGTGATATTTATCGTCACAAAATGTTGTCTG 1553  
 |||||  
 Qy 1552 TTTTGTCTTCTGGAAGTTTACTAGAAAAGTGAAGAAGGAAAAAGGGATTAGTTAT 1606  
 |||||  
 Db 1554 TTTTGTCTTCTGGAAGTTTCTAGAAAAGCAAAGAAGGGAAAAATGATTAGTTAT 1608  
 |||||

RESULT 11

AAV15900

ID AAV15900 standard; cDNA; 2107 BP.

XX

AC AAV15900;

XX

DT 26-MAY-1998 (first entry)

XX

DE Uridine diphospho-glucuronosyltransferase 2B17 (UGT2B17) encoding cDNA.

XX

KW Uridine diphospho-glucuronosyltransferase 2B17; UGT2B17; catalyse;  
 KW androsterone; androsterone-glucuronic acid; androgen; enzyme; ss.

XX

OS Homo sapiens.

XX

FH	Key	Location/Qualifiers
FT	5'UTR	1. .51
FT		/*tag= a
FT	CDS	52. .1644
FT		/*tag= b
FT		/product= "UGTB17 enzyme"
FT	3'UTR	1645. .2107
FT		/*tag= c

XX

PN WO9744466-A1.

XX

PD 27-NOV-1997.

XX

PF 16-MAY-1997; 97WO-CA000328.

XX

PR 17-MAY-1996; 96US-00649319.

XX

PA (ENDO-) ENDORECHERCHE INC.

XX

PI Belanger A, Hum DW, Beaulieu M, Levesque E;

XX

DR WPI; 1998-018520/02.

DR

P-PSDB; AAW47126.

XX

PT DNA encoding uridine di:phospho:glucuronosyl:transferase 2B17 - which  
 PT catalyses conversion of androsterone to androsterone-glucuronic acid.

XX

PS Claim 15; Page 4-6; 53pp; English.

XX

CC This cDNA encodes an enzyme uridine di-phosphoglucuronosyltransferase  
 CC 2B17 (UGT2B17). This novel enzyme catalyses the conversion of  
 CC androsterone to androsterone-glucuronic acid. The UGT2B17 can be used to  
 CC detect anti-UGT2B17 antibodies. The antibody can be used to detect a  
 CC localised concentration of UGT2B17 or an alteration in androgen activity.  
 CC The UGT2B17 can also be used to alter the concentration of an androgenic  
 CC compound in a tissue, specifically dihydrotestosterone. An isolated  
 CC nucleotide sequence comprising at least 30 consecutive nucleotides from  
 CC the coding region of the 2107 base pair sequence, or its complement can  
 CC be used to block the synthesis of UGT2B17, e.g. an expression disrupting  
 CC sense or antisense fragment, or as a probe for a UGT2B17 coding sequence

SQ Sequence 2107 BP; 657 A; 382 C; 424 G; 644 T; 0 U; 0 Other;

Query Match 59.7%; Score 958.6; DB 2; Length 2107;  
Best Local Similarity 77.3%; Pred. No. 5.4e-239;  
Matches 1249; Conservative 0; Mismatches 339; Indels 27; Gaps 6;

QY	1	ATGCTATGATGAAATGGACTTCAGTCTCTTCTGTTGATACAGCTGAGCTATTACTCTAGCTCT	60
Db	52	ATGTCTCTGAAATGGATGTCAGTCTTTTCTGCTGATGCAGCTCAGTTGTTACTTTAGCTCT	111
QY	61	GGGAGTTGTGGAATATGTGCCGCTGTGGCCCATGGAATATAGTCCTTGGATGAATATAAAG	120
Db	112	GGGAGTTGTGGAAGGTGCTGGTGTGGCCACAGAATACAGCCATTGGATAAATATGAAG	171
QY	121	ACAATCCTGGATAAACTTATGCAGATAAGTCATGAGGTGACTGTTCTAACATTGTTCAGCT	180
Db	172	ACAATCCTGGAAGAGCTTGTTCAGAGGGGTCATGAGGTGATTGTGTTGACATCTTCGGCT	231
QY	181	TCCATTCTTGTTGATCCCAACATAACATCTGTACTAAATTGAGGTTTATCTATATCT	240
Db	232	TCTATTCTTGTCATATGCCAGTAAATCATCTGCTATTAAATTAGAAGTTTATCCTACATCT	291
QY	241	GTAATTAAGATGATTTTGCAGGGTTTTTTTTTCACACAACAGATTACTAAATGGATACAT	300
Db	292	TTAACTAAAAATGATTGGAAGATTTTTTTATGA---AAATGTTTCGATAGATGGACATAT	348
QY	301	GATCTTCCAAAAACATATATTTTGGTTTAAATGTGTTCCCTTCAAGAATATTCTTTGGGAA	360
Db	349	AGTATTTCAAAAAATACATTTTGGTCATATTTTTCACAACTACAAGAATTGTGTTGGGAA	408
QY	361	TATTCTGGTTTATACTGAGAAGTTCCTTAAAGATGTAGTTTGAACAAGAACTTATGACA	420
Db	409	TATTCTGACTATAATATAAAGCTCTGTGAAGATGCAGTTTGAACAAGAACTTATGAGA	468
QY	421	AACCTACAAGAATCAAGGTCTGATGTCGTTTCATGCAAATGCCATTGGTCCCTTTGGAGAG	480
Db	469	AAACTACAAGAGTCAAAATTTGATGTCTTCTGGCAGATGCCGTTAATCCCTGTGGTGAG	528
QY	481	CTGCTGGCTGAGCTATTAAAAATATCCTTTGTGTACAGTCTCCACTTCTCTCTGGCTAC	540
Db	529	CTGCTGGCTGAACACTACTTAACATACCCTTTCTGTACAGTCTCCGCTTCTCTGTGGCTAC	588
QY	541	ACATTGAGAAATACAGTGGAGGATTTCTACTTCCACCTTCTATGGAGCTGTTATTCTG	600
Db	589	ACAGTTGAGAAGAAATGGTGGAGGATTTCTGTTCCCTCCTTCTATGTACCTGTTGTTATG	648
QY	601	TCAGAATTAAGTGGTTCGATGACATTTCATGGAGACAGTAAGAAATATTATATATGTGTTT	660
Db	649	TCAGAATTAAGTGATCAAATGATTTTCATGGAGAGGATAAAAAATATGATATATATGCTT	708
QY	661	TATTTTGACTTTTGGTTCCAACATTTGATATGAAGAAGGGAGACCAGTTTACAGTGAA	720
Db	709	TATTTTGACTTTTGGTTTCAAGCATATGATCTGAAGAAGTGGGACCAGTTTATAGTGAA	768
QY	721	GTTCTAGTAAGTCATGTTTTTTATCTGAGATAATGGGAAAAGCTGAAATGTGGCTCATT	780
Db	769	GTTCTAGGAAGACCCACTACATTATTGAGACAATGGGAAAAGCTGAAATGTGGCTCATT	828
QY	781	CGAAACTACTGGTATTTGGAATTTCTCGCCCACTCTTACCTAATTTGAATTTGTTGTA	840
Db	829	CGAACCTATTGGGATTTTGAATTTCTCGCCCACTCTTACCAAATGTTGATTTTGTGGA	888
QY	841	AGACTCTACTGCAAACCTGTCAACCCCTGCCTAAGGAGAAAAATGGAAGAATTTGCCAG	900
Db	889	GGACTTCACTGTAAACAGCCAAACCTTGCTAAGG---AAATGGAAGAGTTGTGTCAG	945
QY	901	AGCTCTGATGAAGACGG---TGTTGTGTTTTCTCTGGAGTCAGCTGTGCAAAACCTTACA	957
Db	946	AGCTCTGGAGAAAATGGTATTGTGGTGTCTCTGGGGTTCGATGATCAGTAACATGTCA	1005

Result No.	Score	Query Match	Length	DB	ID	Description
1	798.4	49.7	2079	14	CD013998	CD013998 90117389
2	784.2	48.8	1946	11	AK050435	AK050435 Mus muscu
3	777.8	48.4	2573	11	AK004971	AK004971 Mus muscu

4	713	44.4	1892	11	AK034801
5	710.4	44.2	1896	11	AK002736
6	695.4	43.3	2895	11	AK083294
7	689.8	43.0	1642	14	CD013996
8	600.8	37.4	1716	14	CD013997
9	554.6	34.5	1783	11	AK050327
10	549.8	34.2	2099	11	AK008601
11	525	32.7	983	13	BX444042
12	520.8	32.4	1023	14	CD013994
13	520.8	32.4	1336	14	CD013995
14	518.6	32.3	2575	11	BC048920
c 15	442	27.5	823	10	BF689099

AK034801	Mus muscu
AK002736	Mus muscu
AK083294	Mus muscu
CD013996	90117309
CD013997	90117357
AK050327	Mus muscu
AK008601	Mus muscu
BX444042	BX444042
CD013994	90130114
CD013995	90130122
BC048920	Mus muscu
BF689099	602185172